

천세영, FACEBOOK/CHOOJADO
스마트교육학회장, 충남대학교학과교수
교육개혁포럼, 2015.11.20

지속가능발전교육(EDUCATION FOR SUSTAINABLE DEVELOPMENT)을 위한 스마트교육 전략 제안



Sustainable Development Goals for Education



Sustainable Development Goal 4 - "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"

With the stand-alone [Goal 4 on education](#) and its related targets, the 2030 Agenda for Sustainable Development recognizes that education is essential for the success of all sustainable development goals (SDGs). Education is also included in goals on health, growth and employment, sustainable consumption and production, and climate change.

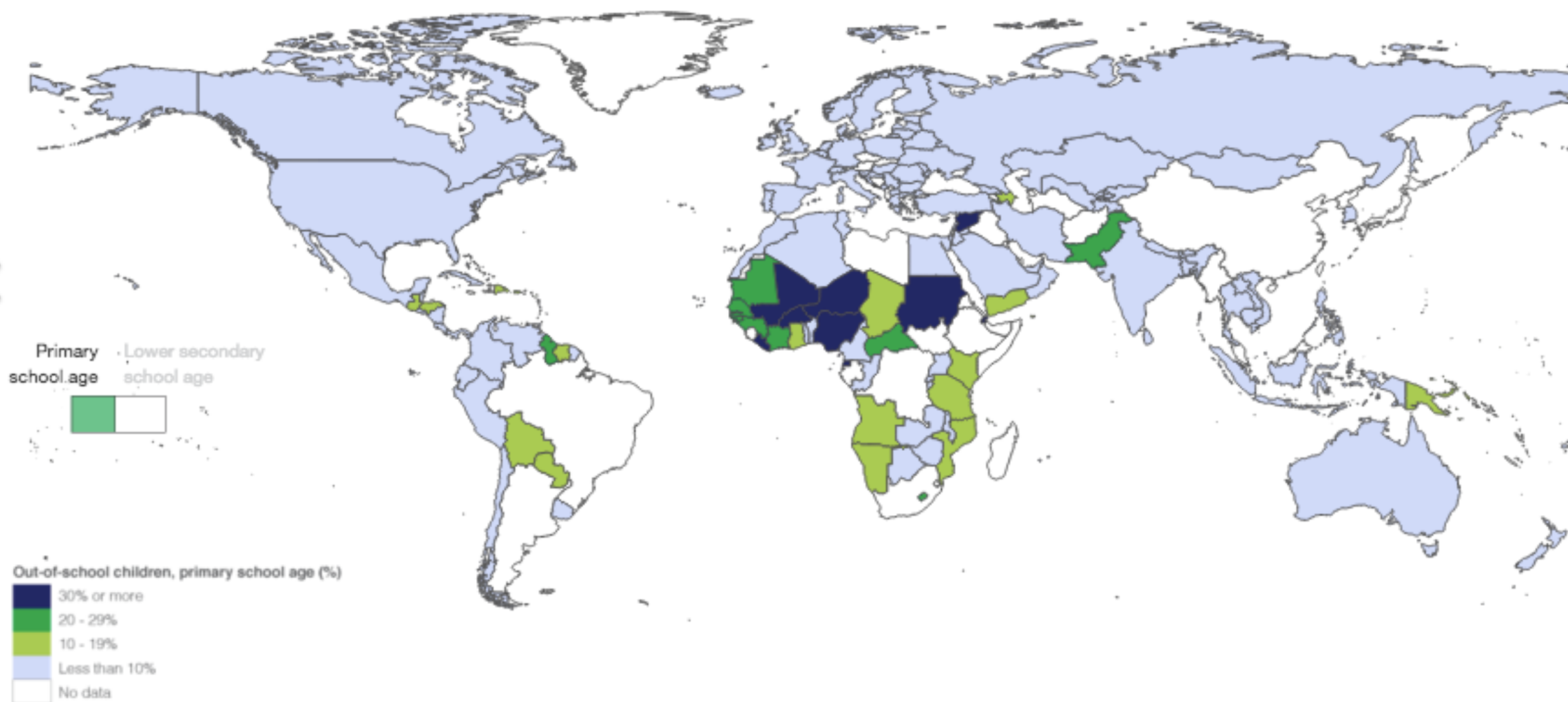


학교밖 어린이, 1,240억명

Target 4.1: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

Out-of-School Children

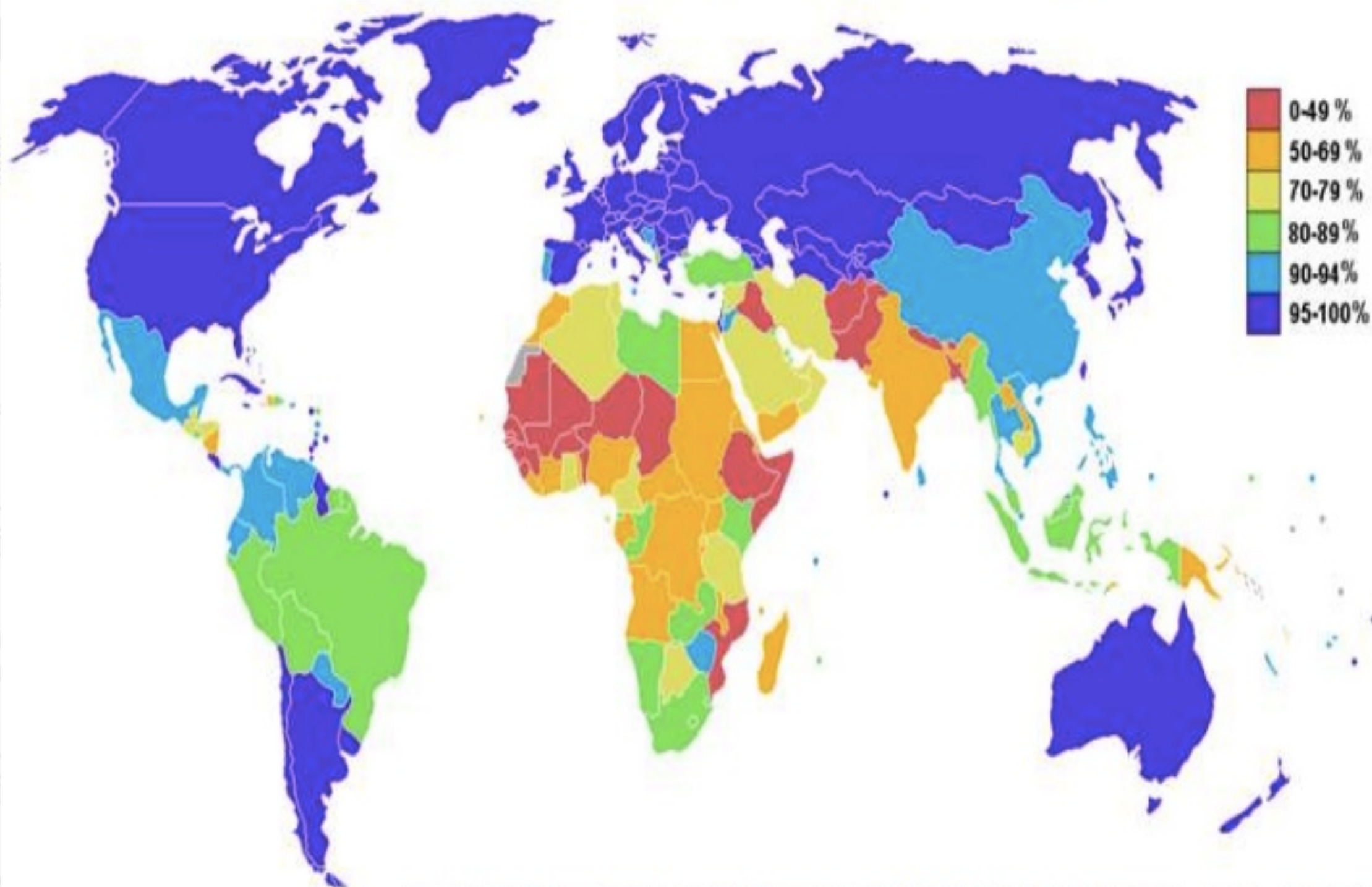
124 million children and adolescents are denied the right to education.



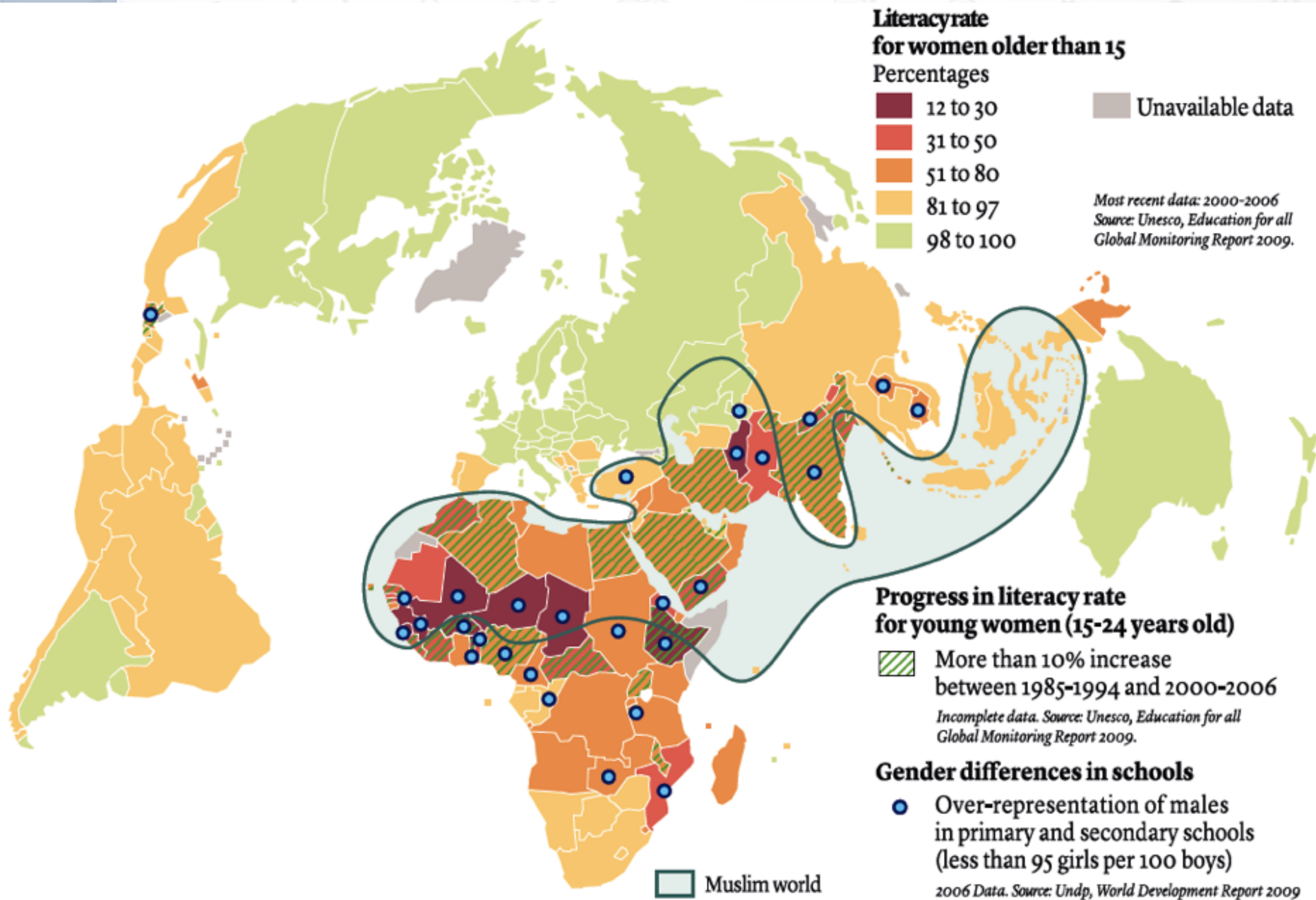
Gloomy Goals: Education vs Literacy

- Jomtien Decade started in 1990:
 - From Literacy for All to Education for All by 2000 (1990-2000 one decade), but delayed again
 - “universal access to basic education by 2015 !”
in 2000 at Dakar WEF
- Six-year basic primary education seems to have reached at least in reports by 2015
- However, 1 in 5 of world population are still illiterate, 2/3 are women

A world map showing the literacy rates



http://wikieducator.org/images/8/82/World_literacy_rate_map.png



Delaying Goals: Incheon Declaration for 2030



"...we will ensure the provision of 12 years of free, publicly funded, equitable quality primary and secondary education..."

Education
2030:

Towards
inclusive and
equitable
quality
education and
lifelong
learning for all

"...urge ...allocating efficiently at least 4 - 6% of Gross Domestic Product and/or at least 15 - 20% of total public expenditure to education..."

A photograph of a mountain landscape at twilight. In the foreground, a glowing orange tent sits on a rocky shore. Behind it is a calm lake reflecting the sky. In the background, rugged mountains with patches of snow rise against a sky with streaks of light from the setting or rising sun.

EDUCATION

IS

THE PROBLEM ?



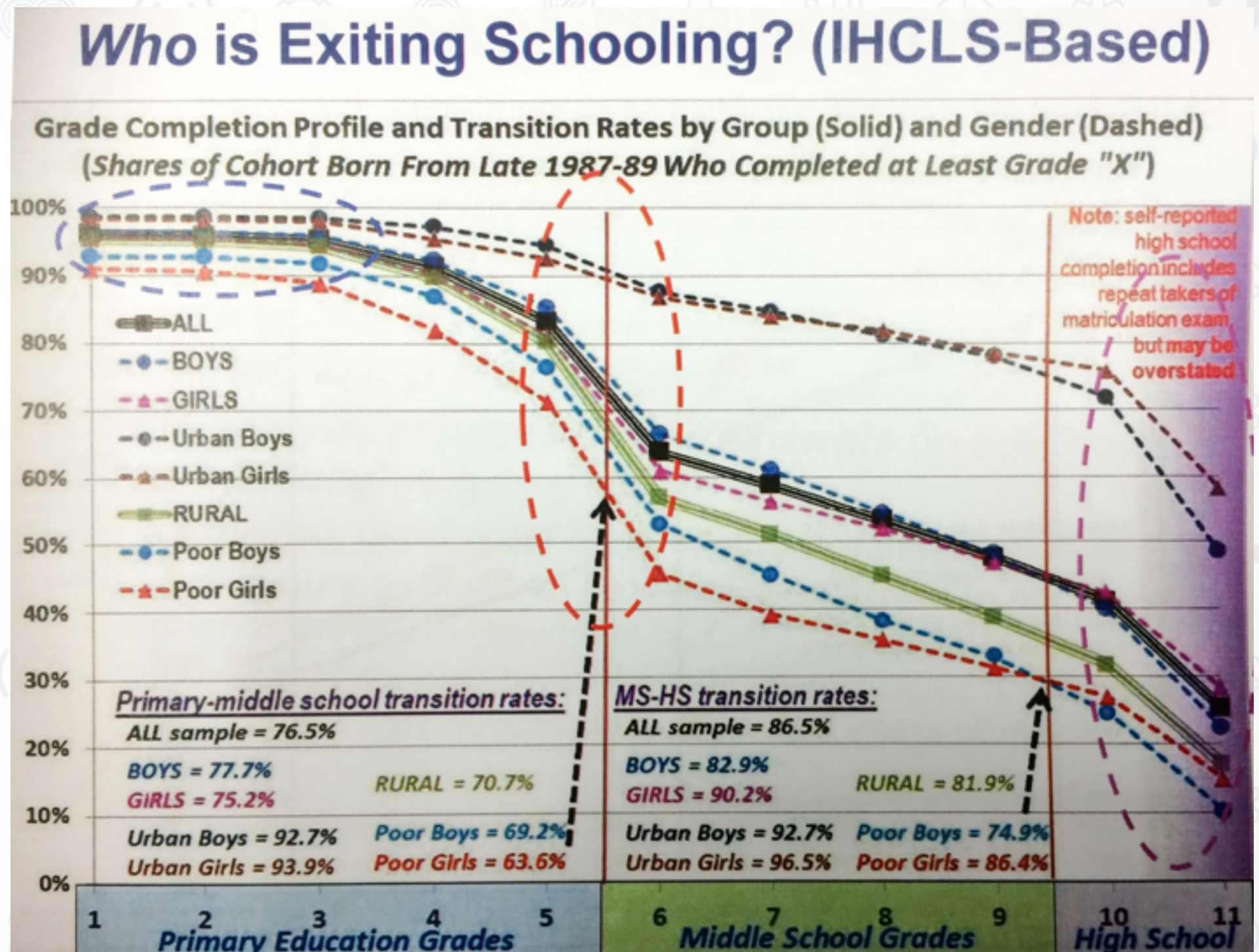
CAN READ

**BUT CANNOT
COMPREHEND**

One Example: Myanmar Report on Education

British
surprised at
higher adult
literacy in
Myanmar
than in
London
when they
came in
1890s !

However,,,,,



From Myanmar maybe to all others

Lack of interest get bigger reason as higher grade.

Matriculation test at grade 12 in English and Science and Maths taught in English

Reasons for Dropout, Per IHCLS & CESR SES School Survey

Teacher-reported Reasons for Middle/High School Student Dropout Compared to IHCLS Responses (by Parents)

	IHCLS RESPONSES (PARENTS)						CESR SECONDARY SCHOOL SURVEY (TEACHER RESPONSES)	
	No primary (1)	Primary dropout (2)	Non-transition to MS (3)	MS dropout (4)	Non-transition to HS (5)	Incomplete or failed HS (6)	Dropout during MS or HS	
							Top reason (7)	Among top 3 reasons (8)
Share of cohort	3.8%	12.7%	19.5%	15.8%	6.2%	15.1%		
Cumulative share of cohort	3.8%	16.5%	36.0%	51.8%	58.0%	73.2%		
Share of completers not transitioning			23.4%		12.8%			
Reasons for non-entry, dropout or exit:								
Costs not affordable	49.0%	41.7%	32.5%	24.5%	26.1%	16.8%	52.0%	54.3%
Personal illness	7.7%	2.1%	1.8%	1.9%	0.4%	2.1%	5.0%	4.9%
Lack of interest	25.9%	26.7%	22.3%	33.1%	35.2%	49.0%	34.1%	63.7%
Got married/pregnant	0.0%	0.4%	1.8%	0.4%	1.0%	3.0%	0.2%	4.3%
Care for family	6.0%	9.6%	10.9%	10.6%	9.4%	6.7%	1.8%	13.1%
Agricultural work	6.8%	10.9%	19.8%	17.2%	16.4%	10.2%	2.9%	39.6%
Other (non-ag.) work	0.1%	6.5%	6.2%	8.8%	8.1%	9.7%	1.6%	15.3%
School too far	1.6%	0.9%	3.6%	2.1%	3.1%	1.3%	0.2%	2.5%
No teacher	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	4.1%
No school supplies	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.5%
No clothing/shoes	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	3.5%
Bad weather	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	23.5%
Other reasons/not reported	3.0%	1.1%	0.8%	1.4%	0.2%	1.2%	0.5%	39.4%
Number of observations	253	691	1029	885	356	837	5,416	5742

- IHCLS (parent responses): "lack of interest" overtakes costs as lead reason for non-completion of SES
- SES school survey (teacher responses): close correspondence in ordering, w/ "lack of interest" most likely to be cited as 1 of top 3 reasons
- "Good news": teachers' recognition of weak quality may be an asset in curriculum reform

Secrets of Korean Success

- Hangul
- Chinese character and translated modern/world knowledge
- Hands with private sector for meeting social demand of education
- And Many other unknown secrets.....
- One quiz of 'no matriculation test' ?
 - easier test for reducing study load
 - wider door toward upper level education

A mountain landscape at twilight. In the foreground, a glowing orange tent sits on a rocky shore next to a calm lake. The lake reflects the colorful sky and the distant mountains. The mountains are rugged and partially covered in snow. The sky is a mix of deep blue, purple, and pink, with wispy clouds. The overall mood is serene and contemplative.

WE NEED

A

DISRUPTIVE SOLUTION !

**"THE HUMAN HISTORY
OF TECHNOLOGY"**

첫 번째 만남: 글자



청각장애와 시각장애 중 누가 더 힘들까요?



위대한 글자: 쑤기문자와 훈민정음



훈민정음									
스	이	시	저	런	와	나			
를	롤	러	홍	전	로	랏			
여	위	퍼	배	초	서	말			
들	하	디	이	로	르	싸			
쑤	야	몬	셔	어	스	미			
를	어	홍	도	린	못	둥			
땡	옛	노	마	뵈	디	귀			
구	비	미	춤	성	아	에			
노	너	하	내	이	니	달			
니	겨	니	제	니	홀	아			
사	새	라	브	르	씨	문			
룸	로	내	들	고	이	쑤			

그림 11-7. 한글 글자로 다시 쓴 훈민정음

훈민정음의 위대함

1. 훈민정음은 인류최고의 발음기호이다.
 - 15세기 중국어 한자의 발음기호
 - 초성복자음의 신비함을 비롯하여
 - 양성모음과 음성모음의 조화 등등....
2. 훈민정음은 한국인의 구강발음기관을 발전시켰다
 - 영어를 가장 원음에 가깝게 발음할 수 있는 한국인들
 - "아이는 엄마의 입술움직임을 보고 말을 배운다!"
3. 훈민정음은 한국교육기적의 원천이다.
 - 해방 10년만의 문맹퇴치 기적
 - 글자를 배움이 학습의 시작이다

子曰 弟子入則孝하고 出則則弟하며 謹而信하며
汎愛衆호되 而親仁이니 行有餘力이어든 則以學文이니라.

두 번째 만남: 종이



코란의 기적: 종이와의 만남



한국인보다 스마트한 유대인 교육의 원천: “하부루타”, 도대체 무엇일까?



세번째 만남: 인쇄술



직지와 구텐베르크: 승자는 ?



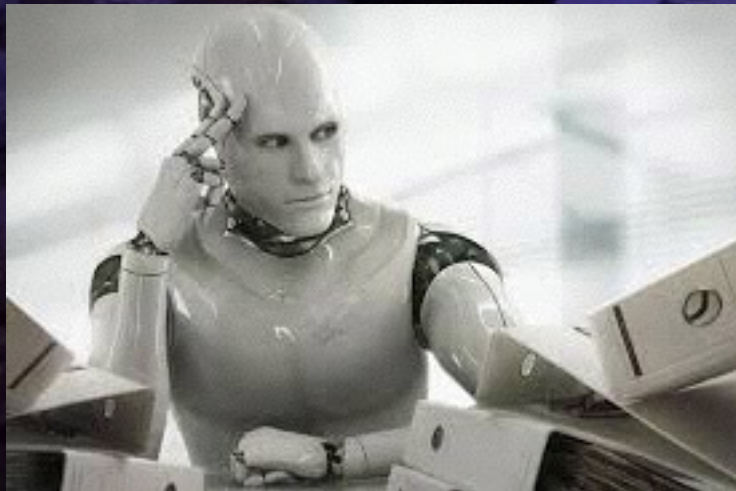
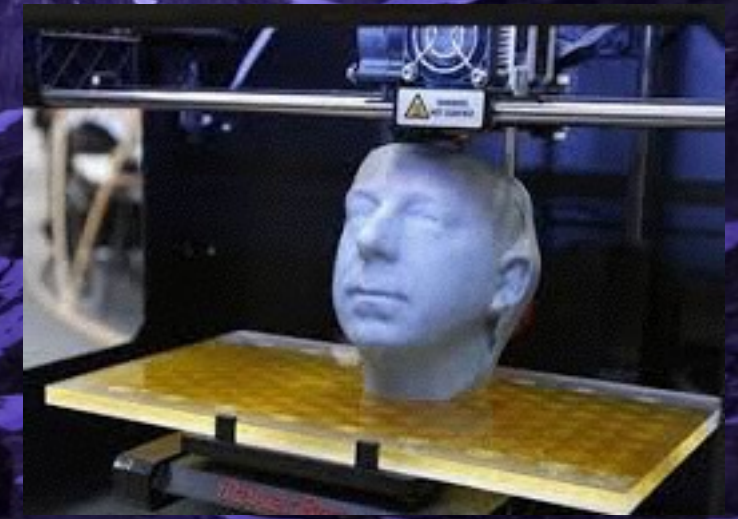
승자는 칠판과 분필이었다 !



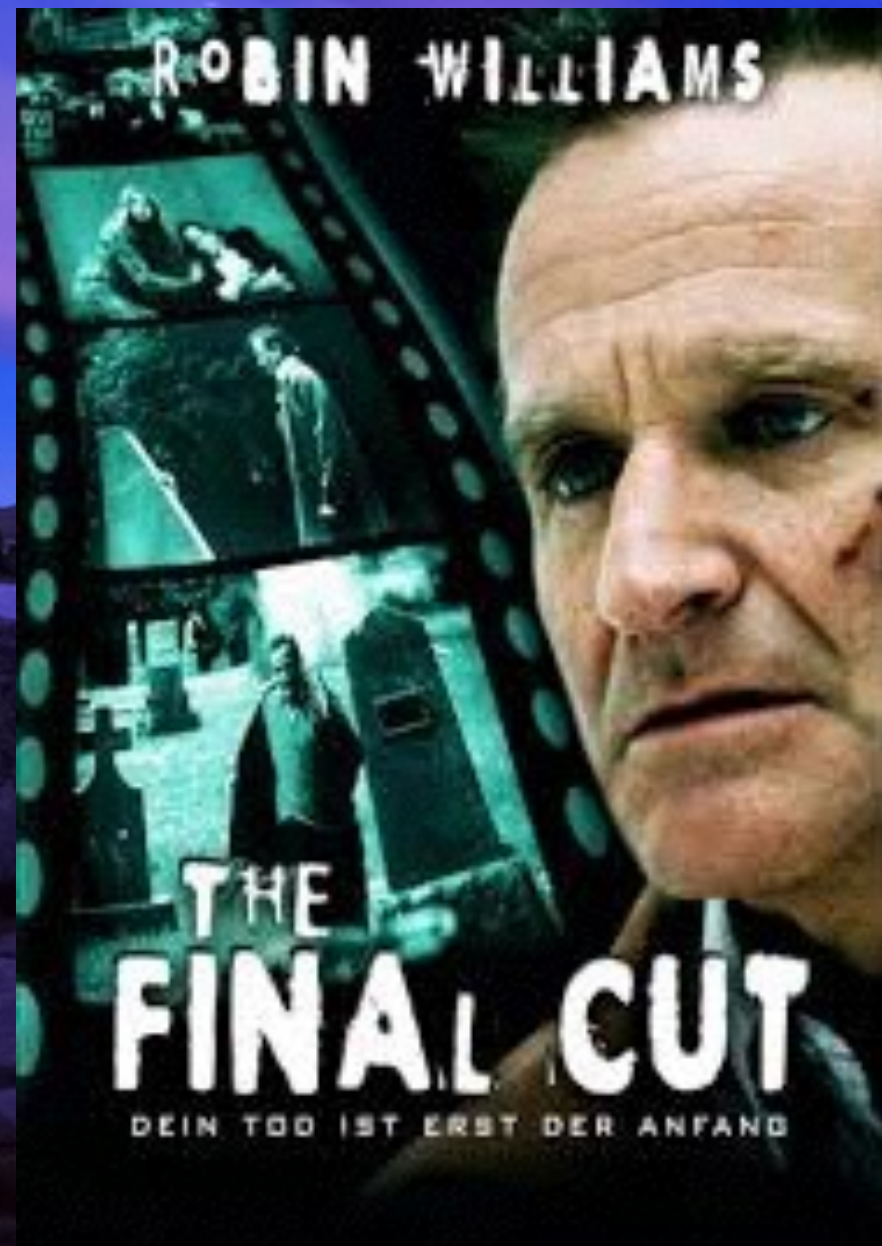
오늘의 만남: 컴퓨터와 스마트기술



스마트폰, 구글글라스,,,,,, 어디까지 갈 것인가?



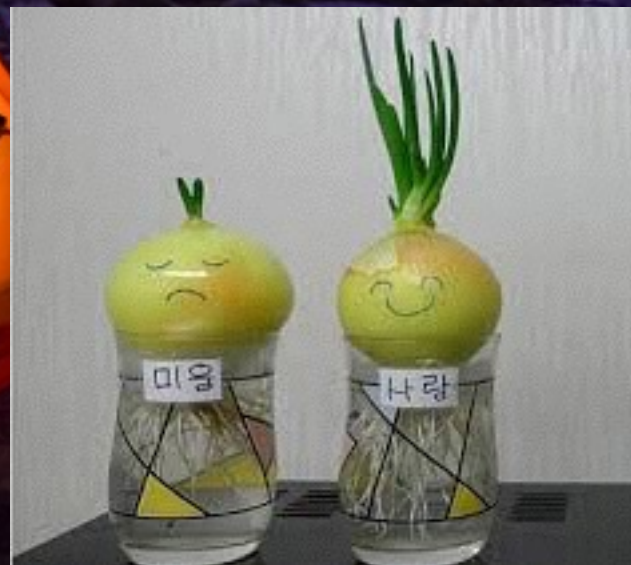
POST-HISTORY: 기록은 더 이상 없다 !



YouTube

무엇을 가르칠 것인가?
무엇을 배울 것인가?

사물이 알아듣는 말?

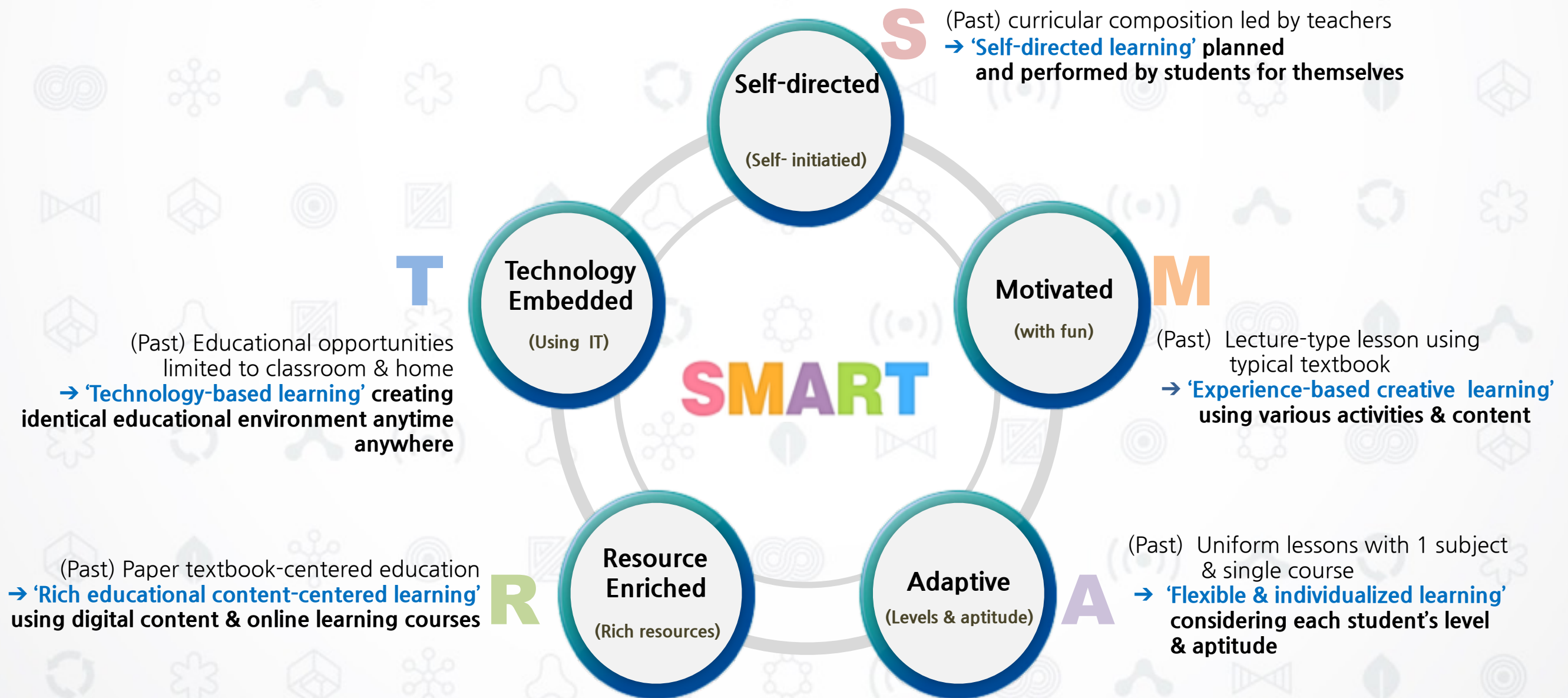


There was one smart challenge, 2011 in Korea !



Definition of SMART Education

SMART Education aims to build an intelligent customized learning system for strengthening competencies of **learners in the 21st century** and to be a driving force for innovating educational system, including educational environment, content & methods, and assessment



스마트교육: ET와의 대화



Some Suggestions...

1. Top priority on learning efficacy : “learning/literacy is the goal, while education is the technology/institution”
2. Mother tongue based education first, but recognition of its distance from world knowledge and skill
3. Basic literacy of 3Rs based on Letter and number are not the only way of learning/literacy/education
4. ICT/smart media must be adopted as the disrupted solution to solve the global illiteracy
5. and let us join.....

A photograph of a mountain landscape at night. In the foreground, a glowing orange tent is pitched on a rocky ground. Behind the tent is a small, dark pool of water reflecting the sky. In the background, there are rugged mountains with patches of snow. The sky is a deep blue with streaks of purple and pink light, suggesting a sunset or sunrise. The overall mood is serene and adventurous.

WHAT WE CAN DO ?

Some Best Practices...

1. http://www.ted.com/talks/sugata_mitra_the_child_driven_education
2. http://www.ted.com/talks/conrad_wolfram_teaching_kids_real_math_with_computers
3. http://www.ted.com/talks/shukla_bose_teaching_one_child_at_a_time
4. http://www.smarteducation.or.kr/index.php?document_srl=162405&mid=board_aRgJ18
5. <http://oer.moeys.gov.kh>

Sugata Mitra:

The child-driven education

TEDGlobal 2010 · 17:13 · Filmed Jul 2010

43 subtitle languages

View interactive transcript

Play

Watch later

Favorite

Download

Rate

Share this idea



2,231,295 Total views

Share this talk and track your influence!

Education scientist Sugata Mitra tackles one of the greatest problems of education — the best teachers and schools don't exist where they're needed most. In a series of real-life experiments from New Delhi to South Africa to Italy, he gave kids self-supervised access to the web and saw results that could revolutionize how we think about teaching.

www.ted.com/talks/sugata_mitra_the_child_driven_education#

TED Talks are free thanks to support from



The screenshot shows a web browser window with the URL www.ted.com/talks/conrad_wolfram_teaching_kids_real_math_with_computers. The page features a large video player with a play button in the center. The video title is "Teaching kids real math with computers" by Conrad Wolfram. Below the title, it says "TEDGlobal 2010 · 17:19 · Filmed Jul 2010". There are options for "32 subtitle languages" and "View interactive transcript". On the right side of the video player, there are icons for "Watch later", "Favorite", "Download", and "Rate". The background of the video player shows Conrad Wolfram speaking at a podium, with a screen behind him displaying "School math" and "Real world math".

Share this idea



1,321,476 Total views

Share this talk and track your influence!

From rockets to stock markets, many of humanity's most thrilling creations are powered by math. So why do kids lose interest in it? Conrad Wolfram says the part of math we teach — calculation by hand — isn't just tedious, it's mostly irrelevant to real mathematics and the real world.

www.ted.com/talks/conrad_wolfram_teaching_kids_real_math_with_computers# kids math through computer

TED Talks are free thanks to support from



1. http://www.ted.com/talks/shukla_bose_teaching_one_child_at_a_time

Shukla Bose:

Teaching one child at a time

TEDIndia 2009 · 16:23 · Filmed Nov 2009

32 subtitle languages

View interactive transcript

Share this idea

708,410 Total views

Share this talk and track your influence!

Educating the poor is more than just a numbers game, says Shukla Bose. She tells the story of her groundbreaking Parikrma Humanity Foundation, which brings hope to India's slums by looking past the daunting statistics and focusing on treating each child as an individual.

TED Talks are free thanks to support from

The Laws of Medicine

NEW FROM TED BOOKS

스마트교육학회
SMART EDUCATION SOCIETY

혜성 로그인 검색

Welcome 학회소개 학회소식 학술지 연구분과 커뮤니티 회원관리 자료실



혜성 LOGIN

공지사항

- 회원 정보
- 스크랩 보기
- 저장함
- 작성글 보기
- 친구 보기
- 쪽지함 보기

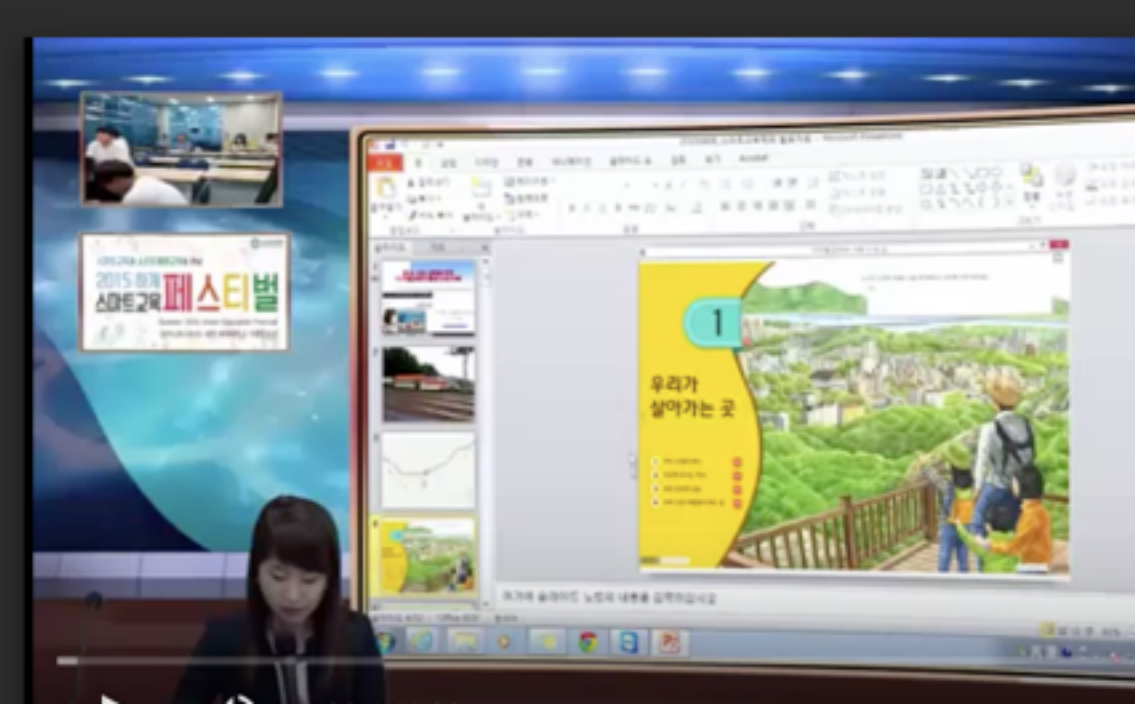
2016 에듀텍 코리아 참가객 사전등록... 2015-11-18 19:43

2016 동계 스마트교육 페스티벌 개최... 2015-11-16 15:37

2015 하계 페스티벌 참가신청 안내(0... 2015-07-18 13:13

[TEEF] 세계교육문화축전발행 1 2015-07-13 13:57

시간		세션별 발표			
		Track 1	Track 2	Track 3	Track 4
오전	09:30~10:00	등록			
	10:00~10:10	개회식(사회자 : 이수철)			
	10:10~11:10	기조 강연 : 고석범 신경과 과장, 전 보바스기념병원장 - Move forward! 쉽게 배우고 크게 쓸 수 있는 R 프로그래밍과 손 위에서 느껴보는 소프트웨어교육의 가치			
	11:10~11:20	휴식			
	11:20~12:20	좌장 : 김현진(온라인)	좌장 : 김정일	좌장 : 박종대	좌장 : 허원
		김혜진 : 모세익 기적을 일으킨 거꾸로 교실의 마법	양현주 : 미국 고등학교의 정보기기를 활용한 과학수업 사례	윤상현 : 스토리텔링 알고리즘 수업	천세영 : 교육과 기술의 만남
		이준수 : Flipped STEAM 프로그램	김병현 : 장애학생을 위한sw교육	우성철 : HTML5 기반의 Prototype tools의 활용	김지영, 노태근 : 스텔링스 플랫폼을 활용한 팀 프로젝트 문제해결형 수업 모형 사례
		김백균 : Teachers be platform(21세기 교실에 대처하는 선생님의 자세)	김해동 : 비주얼씽킹 교육 사례	조나연 : sw 활용 과학동아리 운영	박형주 : 모바일러닝을 활용한 자기주도학습 체제 개발과 적용
	12:20~13:10	정식			
	13:10~13:20	MOU 체결 : 스마트교육학회, 소프트웨어정책연구소, 한국정보교육학회와 MOU 체결(사회자 : 박근우)			
	13:20~14:10	토론회 : 다시 시작하는 스마트교육의 방향 (사회자 : 김미영, 발표자 : 김진숙)			
	14:20~14:30	휴식			
		좌장 : 범수균	좌장 : 김차영	좌장 : 정영식	좌장 : 송은정
		범수균 : IT-enabled	이인지 : 2015 대하민국	이미영 : 건강한 아이가	이수철 : 빅데이터



2015 스마트교육 페스티벌

우리가 살아가는 곳

스마트교육학회
공개 그룹

토론 멤버 이벤트 사진 파일

이 그룹 검색

게시물 작성 사진 / 동영상 추가 설문 만들기 파일 추가

글쓰기...

상단 고정 게시물

김현진
11월 16일 오전 9:21 · 강원도 삼척

[2016 동계스마트교육 페스티벌 개최 안내]

안녕하세요? (사)스마트교육학회(회장 천세영)에서는 "다시 시작하는 스마트교육"이라는 주제로 2016 동계스마트교육 페스티벌을 개최합니다. 이번 페스티벌은 EDUTEC KOREA 2016(2016 교육박람회)와 함께 진행됩니다. 스마트교육을 비롯한 미래 교육 방법에 대한 현장 선생님, 연구자, 개발자들의 다양한 사례 발표가 이어질 것입니다. 여러분의 적극 참여 부탁드립니다.

* 일시 : 2015.01.13.(수) 10:00 ~17:00

멤버 3,805명 (새 멤버 5명)

이메일로 초대

설명
스마트교육 학회입니다.

자세히 보기

요청 (17)

임한균
함께 아는 친구 1명


조상훈

Sugata Mitra: The child-dri x Conrad Wolfram: Teaching x Shukla Bose: Teaching one x 김미영1.mp4 - Google 드라이 x (4) Sok Tha - 메시지 x OER Cambodia x Se-yeoung

oer.moeys.gov.kh

SNS UT cheps Google http://www.learningc Classical - Groovesh Start Search google 구글맵 Safari에서 가져온 북마크 Bookmarks 기타 북마크

OER CAMBODIA ≡ DOCUMENT TYPE ≡ LEVELS ≡ GRADES ≡ SUBJECTS ABOUT US CONTACT US Search... Q



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Levels

- Lower Secondary
- Primary Education
- Teacher Training
- Upper Secondary

Grades

- Grade 10
- Grade 11
- Grade 12
- Grade 4


Latest Posts



Welcome to the Open Educational Resources (OER) Cambodia blog

Welcome to the Open Educational Resources (OER) Cambodia blog, managed by Ministry of Education,...

READ MORE >



"English is Fun" is coming soon

Popular Post

Video

Category



Basic English Language Skills for Trainers and Teachers 1



A Manual for English Language Teacher Trainers 2



"English is Fun" is coming soon 3

oer.moeys.gov.kh

- 
- The background of the slide is a photograph of a mountain landscape. In the foreground, a glowing orange tent is pitched on a rocky, snow-dusted ground. The middle ground shows a valley with patches of snow and dark rocks. In the background, a large, rugged mountain peak is visible under a sky with soft, colorful light rays in shades of blue, purple, and pink, suggesting a sunrise or sunset.
- GLOBAL SOCIETY CALLS FOR KOREAN EDUCATION !
 - DISRUPTING ALL SLOGANS: *LFA JOMTIEN
DECADE EFA MDG SDG EF POST-2015 MUSCAT
AGREEMENT INCHEON DECLARATION,,,,,*
 - THE NEW ONE BY THE DISRUPTIVE TECHNOLOGY FOR GLOBAL CONNECT BY 2030: *UN EDUCATION COMMISSION &
SMART EDUCATION IN 2016, KOREA*